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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,704	12/08/2003	Ravi P. Nargund	21151	3989

210 7590 09/25/2006

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EXAMINER	
SPIVACK, PHYLLIS G	
ART UNIT	**PAPER NUMBER**
1614	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,704	NARGUND ET AL.	
	Examiner	Art Unit	
	Phyllis G. Spivack	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3-13-06; 6-30-06*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *3,4,10,12,13,18,25,32 and 40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-9,11,14-17,19-24, 26-31 and 33-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicants' Response filed March 13, 2006 to the Request for Elections of Species for a pharmaceutical composition comprising 1) two appetite suppressants, 2) an appetite suppressant and a metabolic rate enhancer, 3) an appetite suppressant and a nutrient absorption inhibitor, 4) two metabolic rate enhancers, 5) a metabolic rate enhancer and a nutrient absorption enhancer, is acknowledged. Applicants elected composition species, for 1) two appetite suppressants, AM 251 and phentermine; for 2) an appetite suppressant and a metabolic rate enhancer, AM 251 and L-796568; for 3) an appetite suppressant and a nutrient absorption inhibitor, AM 251 and orlistat; for 4) two metabolic rate enhancers, L-796568 and theophylline; for 5) a metabolic rate enhancer and a nutrient absorption inhibitor, L-796568 and orlistat.

Further, Applicants' Response filed June 30, 2006 to the Restriction Requirement is acknowledged. Applicants provisionally elected with traverse Group II, drawn to methods and compositions comprising two active agents in the five categories *supra* in a method of treating obesity that is unrelated to diabetes, overeating and bulimia.

Applicants argue there is no serious burden in combining the restricted groups into one search and urge it would be more efficient to search all of the indications together for the elected compositions. Applicants additionally request the inclusion of diabetics in the patient population having obesity.

The present claims are drawn to a plethora of compound species. For this reason alone an unduly extensive search burden is presented to the Examiner.

Diabetes is a complex and multi-factorial disease involving multiple organ systems. Different considerations pertaining to etiology, diagnosis, pathophysiological

manifestations and treatment protocols for the diabetic extend beyond that for an obese individual without this particular pathology. A reference that anticipates treatment for an otherwise healthy, but obese individual, for example, under 35 U.S.C. 102 would not anticipate or make obvious under 35 U.SC. 103, obesity associated with diabetes. One skilled in the art could readily practice the invention directed to any one of the above species without infringing and/or practicing the inventions of any of the other species.

Further, because of the distinct and independent nature of the claimed disease states, a search for all such species together in both patent and non-patent data bases and evaluation of the claims under 35 U.S.C. §§ 101,102, 103 and/or 112 would impose a serious burden on the Examiner in conducting a proper examination of the present application.

Distinctness of the claimed methods and compositions is further evidenced by the different classification of the claims based on the different active agents. Moreover, as to the search burden, classification is merely one indication of the burdensome nature of the required search. The literature search of the large number of possible genera of compounds claimed herein is not necessarily co-extensive and is a major factor in determining burden.

Accordingly, the present Restriction Requirement and Requirement for an election of species are proper.

The subject matter of Group II, specifically those compound species recited *supra*, claims 1, 2, 5-9, 11, 14-17, 19-24, 26-31 and 33-39, drawn to the treatment of obesity of a non-diabetic etiology, including overeating and bulimia, comprising

administering the compositions comprising the combinations set forth *supra*, represent the subject matter presently under consideration. Claims 3, 4, 10, 12, 13, 18, 25, 32 and 40 and those combinations and methods of use not drawn to the treatment of obesity of a non-diabetic etiology, including overeating and bulimia, are withdrawn from consideration by the Examiner, 37 CFR 1.42(b), as drawn to non-elected inventions. Re-affirmation of the elected subject matter is requested when Applicants respond to this Office Action.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5-9, 11, 14-17, 19-24, 26-31 and 33-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 12, 14-18, 21-26, 34-39, 47-51 and 55 of copending Application No. 10/520566. Although the conflicting claims are not identical, they are not patentably

distinct from each other because the co-pending application is drawn to the treatment of obesity comprising administering those anti-obesity agents, such as phentermine, β3 agonists and CB-1 inverse agonists, that are presently claimed. The open language of the present claims allows for the inclusion of any number of additional active compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 2, 5-9, 11, 14-17, 19-24, 26-31 and 33-39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention. The claims are directed to the treatment of obesity, including overeating and bulimia, and compositions comprising combinations of 1) two appetite suppressants, AM 251 and phentermine; 2) an appetite suppressant and a metabolic rate enhancer, AM 251 and L-796568; 3) an appetite suppressant and a nutrient absorption inhibitor, AM 251 and orlistat; 4) two metabolic rate enhancers, L-796568 and theophylline; 5) a metabolic rate enhancer and a nutrient absorption inhibitor, L-796568 and orlistat. The specification provides no support for treating obesity, including overeating and bulimia, comprising administering said combinations.

Attention is directed to *In re Wands*, 8 USPQ2d 1400 where the court set forth factors to consider when assessing whether or not a disclosure would require undue experimentation. These factors are:

1) the quantity of experimentation necessary

2) the amount of direction or guidance provided

3) the presence or absence of working examples

4) the nature of the invention

5) the state of the art

6) the relative skill of those in the art

7) the predictability of the art and

8) the breadth of the claims.

The instant specification fails to provide guidance that would allow the skilled artisan background sufficient to practice the instant invention without resorting to undue experimentation in view of further discussion below.

The nature of the invention, state of the prior art, relative skill of those in the art and the predictability of the art

The claimed invention relates to treatment of obesity, including overeating and bulimia, and compositions comprising combinations of 1) two appetite suppressants, AM 251 and phentermine; 2) an appetite suppressant and a metabolic rate enhancer, AM 251 and L-796568; 3) an appetite suppressant and a nutrient absorption inhibitor, AM 251 and orlistat; 4) two metabolic rate enhancers, L-796568 and theophylline; 5) a metabolic rate enhancer and a nutrient absorption inhibitor, L-796568 and orlistat. The specification fails to provide support for any of the combinations in the treatment of obesity.

The relative skill of those in the art is generally that of a Ph.D. or M.D. with

expertise in the area of gastroenterology.

Each particular type of obesity has its own specific characteristics and etiology. The broad recitation "treating an obesity-related disorder" is inclusive of many conditions that presently have no established successful therapies. According to Chaki et al., Expert Opinion Ther. Patents, there are no ideal treatments available to treat the increasingly prevalent health problem of obesity. Long-term maintenance of weight loss often fails.

The breadth of the claims

The claims are very broad with respect to the administration of numerous recited combinations of active agents.

The amount of direction or guidance provided and the presence or absence of working examples

There are no working examples in which any of the recited combination of anti-obesity agents is administered. No guidance is provided to treat any type of obesity-related disorder, such as overeating or bulimia. Examples 2 and 3 on pages 61-62 of the specification are drawn to the administration of the single agent, the CB-1 agonist AM 251. An inhibition of food intake is demonstrated in mice models. There is no disclosure drawn to the administration of a combination of agents either through exemplification or in the Figures. According to Proietto et al., Expert Opinion on Investigational Drugs, "some agents might need to be used in combination to be effective." See the abstract.

The quantity of experimentation necessary

Applicants have failed to provide guidance as to which particular combination of compounds would be preferred for treating particular types of obesity-related disorders that are encompassed in the claim language. The skilled artisan would expect the interaction of a particular combination of compounds in the treatment of a particular type of obesity to be very specific and highly unpredictable absent a clear understanding of the structural and biochemical basis for each agent. The instant specification sets forth no such understanding. No direction is provided to distinguish therapy among the various types of obesity or among the various anti-obesity compounds that are disclosed in the specification. Absent reasonable *a priori* expectations of success for using a particular combination of agents to treat any particular type of obesity, one skilled in the gastroenterology art would have to test extensively many feeding suppressing agents in combination to discover which particular type of obese patient responds to a particular combination. Since each prospective embodiment, as well as future embodiments as the art progresses, would have to be empirically tested, undue experimentation would be required to practice the invention as it is claimed in its current scope. The specification provides inadequate guidance to do otherwise.

Considering the state of the art as disclosed by the prior art of record wherein single drug treatment is not considered very effective (Atkinson et al., Obesity Research, page 497S, column 1, end of the second full paragraph), and the lack of guidance provided by the specification, one of ordinary skill in the gastroenterology art

would be burdened with undue experimentation to treat all forms of obesity comprising administering the instantly claimed combinations of anti-obesity compounds.

The claimed combinations of agents appear to be free of the prior art. The Examiner is not obligated to extend the search and examination within a Markush claim when the elected species are rejected under 35 U.S.C. 112, first paragraph. See MPEP 803.02.

No claim is allowed.

Proietto et al., Expert Opinion on Investigational Drugs, is cited to show the known administration of the noradrenergic re-uptake inhibitor, phentermine, and the intestinal lipase inhibitor, orlistat, among other categories of drugs, such as neuropeptide Y antagonists and β3 adrenergic agonists, melanocortin-4 receptor agonists and glucagon-like peptide-1 agonists. Mathvink et al, U.S. Patent 6,011,048, is cited to show further the state of the art in that the compound L-796568, N-[4-[2-hydroxy-2-(3-pyridinyl)ethyl]amino]ethyl]phenyl]-4-[4-[4-(trifluoromethyl)phenyl]-2-thiazolyl]-benzenesulfonamide, is known as an anti-obesity agent. See claim 9, column 40. Hjorth et al., Society for Neuroscience Abstract Viewer and Itinerary Planner, teaches the administration of the inverse agonist at the CB1 receptor, AM251, 1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-N-1-piperidinyl-1H-pyrazole-3-carboxamide, as an anti-obesity agent. Hagmann et al., US 2004/0248956, teaches the administration of theophylline as an optional part of a regimen for treating eating disorders associated with excessive food intake. See page 39, second column, under nonsteroidal anti-asthmatics.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Phyllis G. Spivack whose telephone number is 571-272-0585. The Examiner can normally be reached from 10:30 to 7 PM.

If attempts to reach the Examiner by telephone are unsuccessful after one business day, the Examiner's supervisor, Ardin Marschel, can be reached 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phyllis Spivack

September 17, 2006

Phyllis G. Spivack

PHYLLIS SPIVACK
PRIMARY EXAMINER